

## Fall in the Vegetable Garden

Just because it's fall doesn't mean you have to stop gardening. Some vegetables such as carrots and parsnips actually taste best when harvested in late fall or even winter and cole crops can be productive up until a hard frost. Season extenders can be used to get tender crops past the first frost or so. Be that as it may, some parts of the garden are or soon will be finished for the year. In planning for next year, you may want to group crops based on when you expect them to be finished so you can do end of season chores in sections.

When a section of the garden is finished, it is best to remove as much of the crop residue as possible for composting. In a good compost pile, internal temperatures should reach a high enough level to kill weed seeds and disease organisms (140° F.). Composted residues can be returned to the garden in the future. If you completely turn under crop residues by plowing or spading, you can help reduce the inoculum of some, but not all, disease organisms. Rototilling does not bury residues deeply enough to be of much help.

Bare garden soil should be protected when crops aren't growing. Winter rye provides excellent protection during fall, winter and spring. It also takes up leftover nitrogen and prevents it from leaching. The trouble with winter rye is that it is hard to work into the soil in the spring and it can re-grow and act as a weed. Fall-planted oats can provide good protection. They winter kill and so will not be much of a problem in the spring. For good results, these winter cover crops should be seeded by late September to mid October. For those areas of the garden that are still productive, you can seed oats or rye while the crop is still in place. This will allow the cover crop to become established while the vegetable crop is still in the ground.

If your soil needs lime, fall is an ideal time to apply it. Spread the lime and till it in so it is well mixed with the soil. Phosphorus (P) and potassium (K) can also be spread and incorporated into the soil in the fall. Nitrogen (N) should **not** be applied now because it is subject to leaching. Some nitrogen should be applied at planting time and the rest in small amounts as the crop is growing.

A few of next spring's chores can be done now. You can make raised beds now. Raised beds provide for increased drainage which allows the soil to warm up earlier in the spring. This would have been helpful this year. You can even cover the beds with black plastic mulch now for an even quicker start in the spring. You can apply nitrogen now if you are covering it with plastic mulch because it is protected from leaching rains.

As mentioned, crops can be grouped to accommodate fall activities. Crops should also be rotated to aid in soil borne disease management. For this reason, you may wish to group crops of the same family, which often share the same diseases. If you use wide floating row covers, you may want to group crops according to whether or not they will be under the cover. When grouping and rotating crops, some factors will conflict with others. Compromises will be necessary, but advance planning will minimize conflicts.

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